Written Evidence Submitted by the Determining the Impact of Smoking Point of sale Legislation Among Youth (DISPLAY) Study Team¹ (ECG0069)

Executive Summary

Evidence from the DISPLAY study indicates that there is almost universal awareness of e-cigarettes among secondary school children. Experimentation is very common and increases with age. However, regular e-cigarette use is uncommon in this age group. Displays and promotions of e-cigarettes are widespread throughout the outdoor and retail environments and online; and young people are very aware of these. Recall of e-cigarette displays in small shops is associated with e-cigarette use and intention to use e-cigarettes in the future, while e-cigarette use in never smokers was associated with an increase in smoking susceptibility at follow-up. We also found a strong association between e-cigarette use in never smokers and initiation into smoking at one- and two-year follow-ups. The association held, irrespective of gender and household smoking status.

Among never smokers who used e-cigarettes, those who were most likely to go on to initiate smoking came from groups who are traditionally thought to be least likely to do this— that is, those who, at baseline, were not susceptible to smoking, had no friends who smoked, or lived in households of medium to high family affluence. Our combined data suggest that e-cigarette use was linked to changes in attitude towards smoking which mediates the uptake of smoking.

To date we have only demonstrated an association between e-cigarette use and later smoking initiation. However, the consistency of our findings with other longitudinal studies from other countries, and the links between recall of e-cigarettes in small shops and later e-cigarette experimentation, suggests that policy makers should adopt a precautionary principle and consider adopting measures that minimise young people’s access to e-cigarettes and introducing stricter regulations of e-cigarette advertising and promotions in both the outdoor and retail environments.

1. Introduction

1.1 This evidence submission is from the DISPLAY Study research team.¹ DISPLAY is a 5-year study funded by NIHR to determine the impact of the ban on cigarette displays at point of sale (POS) in Scotland on young people’s attitudes to smoking and their smoking behaviour.² Annual data have been collected between 2013 and 2017 via retail mapping surveys, retail display audits, secondary school surveys (S1 – S6, aged 12 to 17 yrs), and focus groups with pupils (S2, aged 13 yrs and S4 aged 15 yrs) in each of 4 communities selected to reflect two levels of socio-economic deprivation (high vs medium and low) and two levels of urbanisation (large urban vs small town). From 2013 onwards, data were collected on e-cigarette displays, and from 2014 onwards on young people’s attitudes towards e-cigarettes and their patterns of use. The evidence presented below is based on a combination of published papers and draft papers in preparation for submission to journals that report the DISPLAY Study findings.

2. Key Findings from Retail Audits and School Surveys

2.1 E-cigarettes are a prominent part of the retail environment. In DISPLAY’s observational audit of retail outlets most frequented by young people in the four study communities (all supermarkets, convenience stores, newsagents, garages, take-aways), the total number of shops selling e-cigarettes rose from 77% in 2014³ to 82% in 2017. In both years, about half of
the shops used purpose-built displays for e-cigarettes, such as tower stands, moulded trays and boxes, product danglers, and hangers.

2.2 The prevalence of e-cigarette experimentation in secondary school pupils is high. In our 2017 school survey, we found that 32% of S1 to S6 pupils (aged 11 to 17 years and referred from now on as young people) had experimented with e-cigarettes. Regular use was much less common, with only 2.6% reporting using e-cigarettes once a week. The likelihood of experimentation increased with age, and by the age of 15, 42% reported having tried e-cigarettes, and 2.4% regular use. Our data are consistent with national data for Scotland. Experimentation with e-cigarette use was much more common in smokers and ex-smokers (83%) than never smokers (18%). However, because the prevalence of smoking is so low in this age group, the absolute number of never smokers who have experimented with e-cigarettes was similar to the number of smokers who have tried them. For example, in 2017, out of a sample of 3,700 young people, 658 of respondents had smoked and used e-cigarettes, compared with 526 who had never smoked or used e-cigarettes.

2.3 In young people there is a strong association between recall of seeing e-cigarettes in small shops and intention to use e-cigarettes. DISPLAY school survey data showed that young people’s recall of e-cigarettes in small shops was related to e-cigarette use and intention to use e-cigarettes in the future. We found this to be the case in cross sectional analyses and in longitudinal analysis when the same children were followed up one and two years later.

2.4 E-cigarette use may increase smoking susceptibility in young never smokers. In a discrete time series analysis of our 2015 to 2017 school survey data, we found that young people who had never smoked but had tried e-cigarettes were at increased risk of becoming susceptible to smoking compared with those who had never tried e-cigarettes.

2.5 Among young people there is a strong association between experimentation with e-cigarettes and later smoking initiation. Regardless of gender and household smoking status, young people in 2015 who had never smoked but had tried e-cigarettes were significantly more likely to try smoking by 2016 and 2017 than never smokers who had no e-cigarette experience.

2.6 The impact of e-cigarette use on smoking behaviour appears to be greatest in young people who are traditionally thought to be least at risk of cigarette experimentation. Young people who had never smoked and were classified as not susceptible to smoking in 2015 were more likely to experiment with cigarettes at both the 2016 and 2017 follow-up if they have tried e-cigarettes, compared to those who were not susceptible and had not tried e-cigarettes. This difference at follow-up did not emerge among never smokers who were susceptible to smoking in 2015. The same pattern emerged for young never smokers with experience of e-cigarettes, who had no friends who smoke or came from households of medium or high family affluence.

3. Key Findings from Focus Groups

3.1 Universal awareness of e-cigarettes among young people. In the 2013 focus groups, e-cigarettes were rarely mentioned spontaneously. Since then, knowledge of e-cigarettes has increased markedly. In the 2014 and 2015 groups, participants tended to describe fads of e-cigarette use, which were short-lived, after which pupils would sell or trade their devices. From focus groups conducted in 2016 and 2017, it is clear that e-cigarettes have become embedded within the culture of the school.
3.2 Although knowledge of e-cigarette brands was low, focus group participants were knowledgeable about the different types of devices available. E-cigarette use among pupils was reported to be high, although regular use was much less common. In some instances, distinct social groups were reported to have formed within schools – smokers and vapers. Smoking groups and the vaping groups were not thought to overlap and were reported to view each other with suspicion.

3.3 Increased awareness of e-cigarette advertising and promotions. Findings from the 2017 focus groups suggest much higher levels of awareness of e-cigarette advertising and promotions in 2017 than in earlier years. Most groups discussed multiple places where they had either seen e-cigarettes or advertising, or places where advertising and promotions were prominent. As well as specialist shops and stalls in shopping centres and markets, pupils reported that many non-specialist shops now also sold a variety of e-cigarettes.

3.4 The most common location of displays and promotions was in close proximity to the till, often in clear, Perspex cases. Shops such as Boots, Poundland and Key Store were now said to be selling these products – the latter two selling cheaper pen-like variants in their aisles. Supermarkets, garages and other smaller shops were also mentioned as sources of e-cigarettes, which were arguably more noticeable if they were in close proximity to shuttered tobacco displays.

   It’s everywhere. It’s even … It’s on bus stops and …
   It’s in like Boots and everything, so …
   … they’re in movies, they’re in posters, they’re in advertising.
   It’s … it’s every … everywhere.
   Taken the world by storm. (S2, Male)
   Well, most of … the newsagents doon in my bit, all the cigarettes are behind shutters but then … there’s like a plastic see-through case thing and its full of chargers and liquids and vapours. (S2, Male)
   And there was like this like electronic screen what … It was in the Co-Op … Like there was one about discounts, and then the next one was like about e-cigarettes. (S2, Male)

3.5 E-cigarettes can easily be obtained by young people. In the 2017 focus groups conducted (before e-cigarettes became an age restricted product in Scotland) in three of our study schools, participants reported e-cigarettes could be easily obtained from the internet (without ID) and could be bought from local shops, ‘run down’ shops in particular. One group mentioned a specific person who stood outside the local shop and sold vapes, and another shop worker who ‘sells them to people our age’. There were also reports of people selling vapes from their houses and of Facebook groups set up specifically for buying vapes and e-cigarettes. Young people also reported shopping around, based on quality and price.

3.6 E-cigarettes are sometimes used as a quit aid. In the 2016 focus groups, mention was made of close family members who had used e-cigarettes mostly to quit or cut down their smoking. Young people also reported using these devices to quit (sometimes using them alongside cigarettes), while others reported relapsing back to only smoking cigarettes. Factors linked
to relapse back to smoking were craving for cigarettes, broken e-cigarettes, and the time it took to recharge e-cigarettes.

3.7 However, e-cigarettes are more often seen as a fun activity. Both smokers and non-smokers referred to the taste, the variety of flavours and that they are ‘fun’, ‘cool’ and ‘the new thing’. The large quantity of vapour cloud that could be produced was also highlighted as an attraction to vaping. In one school focus group, participants talked about ‘hot boxing’ the vapour in the school toilets or at home. Pupils also talked about the ‘tricks’ and ‘hoops’ that they can do with the vapour cloud; one respondent reported this as the main reason for purchasing a vape.

I’ve tried it a few times, coz like … I don’t know. And it just tastes nicer. (S4, Female)

They like had a vape, and then they blew out smoke, and they were like, “D’you … wanna shot?” , and then you had a shot, and you were like, “Oh. That’s quite cool.” (S2, Male)

3.8 Facebook groups organising vaping meet-ups were also mentioned, where people of all ages meet up at someone’s house to vape and ‘hot box’. Box Mods seem to be the most popular variety because of this. One pupil reported spending £200 on a Box Mod so that he could ‘get good clouds’.

Like my one’s about 200 quid, and I saved up for it. It’s one o’ these SMOK ones, and … it’s just fun to do. Like I can hot box in my room an’ that. (S4, Male)

3.9 Negative views of vaping were also expressed. One group described the girls in their school who vaped on the bus home as ‘horrendous’, explaining that ‘they seem to think it’s a toy’. Other respondents reported that they ‘burn your throat’. Another group discussed the ‘little rivalry’ between vapers and smokers. They observed that vapers ‘look down’ on smokers and that smokers ‘get annoyed’ at vapers who are perceived to vape just to ‘fit in’.

4 Discussion

4.1 Evidence from the DISPLAY study indicates that there is universal awareness of e-cigarettes among secondary school children. Experimentation is very common and increases with age. However, consistent with national surveys of school children, regular e-cigarette use is uncommon in this age group. E-cigarette use is much more likely in smokers and ex-smokers than in never smokers. However, because the prevalence of smoking is so low in this age group, the absolute number of never smokers who have experimented with e-cigarettes is about the same as the number who have tried both cigarettes and e-cigarettes.

4.2 Displays and promotions of e-cigarettes are widespread throughout the physical retail environment and online, and young people are very aware of them. Recall of e-cigarette displays in small shops is associated with e-cigarette use and intention to use e-cigarettes in the future. Similar to multiple longitudinal studies from the US, and most recently in England and Canada, we also found a strong association between e-cigarette use in never smokers and initiation into smoking. This association held in cross-sectional analyses and in both our one-year and two-year follow-ups. The association also held, irrespective of gender and household smoking status. Strikingly, never smokers who used e-cigarettes who were most likely to go on to smoke came from groups who are traditionally thought to be least likely to initiate smoking – that is, those who, at baseline were not susceptible to
smoking, had no friends who smoked, or lived in households with medium to high family affluence scores.

4.3 When examining outcomes of the introduction of the ban on tobacco advertising at point of sale, analysis of data gathered between 2013 and 2017 found no difference in the proportion of young people who believed that they would be successful in accessing tobacco or in the proportion of young people who said that they ‘think it is OK to smoke’. However, when the analyses were adjusted for e-cigarette use, we found a decline in the adjusted odds of reporting both of these outcomes. We also found that e-cigarette use in never smokers was associated with an increase in smoking susceptibility at follow-up. Taken together, these findings suggest that e-cigarette use is accompanied by a shift in attitude towards smoking which mediates the uptake of smoking. We plan to explore in more detail the relationships between e-cigarette use, attitudes to smoking, association with smokers and smoking initiation, using path analysis.

4.4 Our data were collected, prior to the introduction of age restrictions on e-cigarette sales, in April 2017. In early 2017, obtaining e-cigarettes, whether from friends or family or purchased from small shops or online, did not pose any difficulty for young people under 18 years of age. To what extent this has changed since age restrictions were introduced, it is not possible to say.

4.5 Based on the current evidence that using e-cigarettes is definitely less harmful than smoking tobacco, there is now a consensus in Scotland\(^9\) that e-cigarette use is a positive option for smokers who want to quit. Therefore, it would benefit smokers if they switched from tobacco to e-cigarettes. However, using e-cigarettes without stopping smoking (dual use) does not confer the same health benefits. Anyone who is using both should be strongly encouraged to stop smoking tobacco as soon as they can.

4.6 However, e-cigarette use is not risk-free. Most e-cigarettes contain nicotine, which is addictive, and there are still uncertainties about the longer-term health effects of e-cigarettes. Thus, from a public health perspective, e-cigarettes should not be regarded as a lifestyle choice for young people and non-smokers, but rather as a potential route towards stopping smoking.

4.7 The challenge for policy makers is to protect young people from the potential risks associated with e-cigarettes while at the same time promoting the benefits of e-cigarettes for smokers who wish to stop smoking completely and switch to e-cigarettes instead.

5. Recommendations

5.1 Young people’s access to e-cigarettes should be restricted and consideration given to what further steps can be taken to enforce age restrictions on the sale of e-cigarettes to minors.

5.2 E-cigarettes advertising in the external environment, such as on bill boards, at bus stops and on electronic monitors, should be prohibited.

5.3 Consideration should be given to prohibiting the advertising and promotions at the entrance to and at point of sale in retail outlets, while still permitting displays elsewhere in stores.

*December 2017*
References

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